

We Claim:

1. A method for isolating a composition from the leaves of *Gymnema sylvestre* comprising:

fragmenting dried leaves of *Gymnema sylvestre* to produce fragmented, dried leaves;

steeping the fragmented, dried leaves in an aqueous solution comprising one or more high polarity organic solvents for at least 24 hours to produce an extract;

acidifying the extract to a pH of about 3.0 or below to produce a first acidified extract;

discarding a water soluble fraction of the first acidified extract and collecting the precipitate.

2. A method according to claim 1, additionally comprising:

dissolving the precipitate in a basic solution to produce a basic extract;

acidifying the basic extract to a pH of about 3.0 or below to produce a second acidified extract; and

discarding a water soluble fraction of the second acidified extract and collecting the precipitate.

3. A method according to claim 2, comprising:

dissolving the precipitate in a mild basic solution.

4. A method according to claim 3, wherein the mild basic solution is a solution of sodium carbonate.

5. A method according to claim 1, comprising:

steeping the fragmented, dried leaves in an aqueous solution comprising one or more high polarity organic solvents for at least 4 days to produce the extract.

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6. A method according to claim 1, comprising:
steeping the fragmented, dried leaves in an aqueous solution comprising one or more high polarity organic solvents, with the organic solvent constituents comprising at least about 5% v/v in the aqueous solution.
 7. A method according to claim 1, comprising:
steeping the fragmented, dried leaves in an aqueous solution comprising one or more high polarity organic solvents, with the organic solvent constituents comprising about 10% to 30%, v/v, in the aqueous solution.
 8. A method according to claim 1, wherein the one or more high polarity organic solvents are selected from the group consisting of: methanol, propanol, butanol, and amyl alcohol.
 9. A method according to claim 1, comprising:
steeping the fragmented, dried leaves in an aqueous solution comprising propanol, butanol and amyl alcohol.
 10. A method according to claim 1, additionally comprising:
concentrating the extract to produce a concentrated extract and adding a salt to the concentrated extract prior to acidifying.
 11. A method according to claim 1, wherein mineral acid is used for acidifying.
 12. The composition isolated by the method of claim 1.
 13. The composition isolated by the method of claim 2.
 14. A method for treating diabetic patients comprising administering the composition of claim 1.

3. A method for treating human diabetic patients according to claim 14, comprising administering the composition at a daily dosage of between about 5 mg and 20 grams.

16. A method for treating human diabetic patients according to claim 15, comprising administering the composition in a single daily, oral dosage of about 750 mg.

17. A method for treating impaired glucose tolerance, comprising administering the composition of claim 1.

18. A method for regenerating the pancreatic islets of Langerhans, comprising administering the composition of claim 1.

19. A method for regenerating the pancreatic beta cells, comprising administering the composition of claim 1.

20. A method for lowering blood lipid, triglyceride and free fatty acid levels in a patient, comprising administering the composition of claim 1.

21. A method for increasing endogenous insulin levels in a patient, comprising administering the composition of claim 1.

22. A method for increasing endogenous lipase and amylase levels in a patient, comprising administering the composition of claim 1.

23. A method for increasing the production of proinsulin in a patient, comprising administering the composition of claim 1.

24. A method for increasing the production of c-peptide in a patient, comprising administering the composition of claim 1.